UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,485	03/01/2004	Akihisa Shouen	826.1933	7539

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/788,485	SHOUEN, AKIHISA
	Examiner	Art Unit	
	Joni Hsu	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 March 2007</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-15* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, see page 5, filed March 9, 2007, with respect to the 35

U.S.C. 101 rejections have been fully considered and are persuasive. The 35 U.S.C. 101

rejections of Claims 6-9 has been withdrawn.

2.   Applicant's arguments filed March 9, 2007 with respect to the 35 U.S.C. 102(b)

and 35 U.S.C. 103(a) rejections have been fully considered but they are not persuasive.

3.   With regard to Gore, Applicant argues that Gore (US005128878A) describes that

operation is begun when a user selects the Rplot command on a pop-up menu that

appears on the client workstation display on the client side of the system. Gore does not

disclose that the user is designating a plot (or image) stored by the file server 230 or plot

server 250, that the file server 230 or plot server 250 extracts a viewport (e.g., designated

portion), or that the viewport is transmitted to the client workstation 210. Gore discloses

that the server converts a request and arguments, runs the requested service, packages the

results and send them back to the client. However, the "arguments" are not images. The

"arguments" or not stored by the server, nor does the server extract any designated

portion of the arguments to transmit to the client workstation. The server of Gore is

merely provided to receive a translated message from the client workstation to allow the

user to complete a task at its workstation (pages 5-6).

In reply, the Examiner points out that Gore describes that rplot 360 creates a

design file plot template which contains a "pointer" to reference the actual data of design

file 320 stored in design file database 325 in the file server (Col. 6, lines 47-68).

Therefore, the actual data of design file 320 is stored in the file server. The user selects

the Rplot command, and when the Rplot command has been selected, the size of the plot

is obtained according to the size of the current view port on the workstation display, and

the current magnification value of the view port. The viewport is that portion of

normalized device coordinate space currently displayed on the client workstation. This

value can be anything from the entire contents of the data file down to the maximum

allowed magnification. The output plot represents the visible portion of the data file

currently displayed on the client workstation at the creation time of the design file plot

template (Col. 7, line 56-Col. 8, line 29). Therefore, the Rplot command selected by the

user results in extracting a viewport (designated portion) of a display result to be

displayed on the client display device as display data from the design file (original image

data) which is stored in the file server, since rplot 360 creates a design file plot template

which contains a "pointer" to reference the actual data of design file 320 stored in the file

server (Col. 6, lines 47-68). Therefore, Gore does teach that the user is designating a plot

(or image) stored by the file server 230, and a viewport (e.g., designated portion) is

extracted from the file server 230, and the viewport is transmitted to the client

workstation 210. Gore describes that the user runs a program, called a client program on

a client workstation, and the server converts the request and arguments into a locally

useful form, runs the requested service, packages the results, and sends them back to the

client (Col. 6, lines 12-32). Therefore, the user makes a request on the client workstation,

and the server runs the requested service. Since the user requests the rplot command, which performs the extracting and resizing (Col. 7, line 56-Col. 8, line 29; Col. 6, lines 47-68), this means that the server runs the requested extracting and resizing (Col. 6, lines 12-32). Therefore, Gore discloses this limitation as it is recited in the claims.

4.   With regard to Schauser (US006331855B1), Applicant argues Schauser discloses that the comparison of the currently displayed image to the previously displayed image is done at the source computer 2 and only thereafter, are the changes stored and/or forwarded to the remote computer 4. Therefore, there is no extracted designated portion of displayed result at the source computer 2 to be transmitted to the remote computer 4. Accordingly, the present invention provides a server extraction unit to extract only a display result to be displayed on a client display device from an original image data of the server, whereas Schauser is concerned with detecting if a change or updates have been displayed on the display screen of a source computer and transmitting it to the remote computer so that the remote computer has the same changes (pages 7-8).

In reply, the Examiner points out that since the source computer 2 of Schauser detects changes to the desktop 8 of its own computer, and the source computer 2 forwards the detected changes to the remote computer 4 (Col. 3, line 57-Col. 4, line 6), this means an image is displayed on the desktop 8 of the source computer 2 first. Schauser describes that the computer detects changes by polling a number of subregions of the screen, to determine if a change has occurred, compares a portion of the currently displayed image to a corresponding portion of a previously displayed image to determine if changes have occurred, and if so, the changes are forwarded to the remote computer 4 (Col. 5, lines 6-

24). The computer determines the exact extent of the change, and examines a

predetermined number of pixels surrounding the detected change, for example, 20 pixels

to the left, right, top and bottom of the detected change, and the detected changes are then

communicated to the remote processing system 4 (Col. 6, lines 22-42). Since an entire

image is currently displayed on the desktop 8 of the source computer 2 first (Col. 3, line

57-Col. 4, line 6), and the source computer 2 then detects the changes by comparing a

portion of the currently displayed image to a corresponding portion of a previously

displayed image, and if changes have occurred, the changes are forwarded to the remote

computer (Col. 5, lines 6-24), this means that the changed **portion** of the image is

extracted from the currently displayed image of the source computer 2 and is forwarded

to the remote computer, and therefore Schauser discloses this limitation as it is recited in

the claims.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a
foreign country or in public use or on sale in this country, more than one year
prior to the date of application for patent in the United States.

6.   Claims 14 and 15 rejected under 35 U.S.C. 102(b) as being anticipated by Gore

(US005128878A).

7.   With regard to Claim 14, Gore describes that rplot 360 creates a design file plot

template which contains a "pointer" to reference the actual data of design file 320 stored

in design file database 325 in the file server (Col. 6, lines 47-68). Therefore, the actual

data of design file 320 is stored in the file server. The user selects the Rplot command,

and when the Rplot command has been selected, the size of the plot is obtained according

to the size of the current view port on the workstation display, and the current

magnification value of the view port. The viewport is that portion of normalized device

coordinate space currently displayed on the client workstation. This value can be

anything from the entire contents of the data file down to the maximum allowed

magnification. The output plot represents the visible portion of the data file currently

displayed on the client workstation at the creation time of the design file plot template

(Col. 7, line 56-Col. 8, line 29). Therefore, the Rplot command selected by the user

results in extracting a viewport (designated portion) of a display result to be displayed on

the client display device as display data from the design file (original image data) which

is stored in the file server, since rplot 360 creates a design file plot template which

contains a "pointer" to reference the actual data of design file 320 stored in the file server

(Col. 6, lines 47-68). Therefore, Gore teaches that the user is designating a plot (or

image) stored by the file server 230, and a viewport (e.g., designated portion) is extracted

from the file server 230, and the viewport is transmitted to the client workstation 210.

Gore describes that the user runs a program, called a client program on a client

workstation, and the server converts the request and arguments into a locally useful form,

runs the requested service, packages the results, and sends them back to the client (Col. 6,

lines 12-32). Therefore, the user makes a request on the client workstation, and the

server runs the requested service. Since the user requests the rplot command, which

performs the extracting (Col. 7, line 56-Col. 8, line 29; Col. 6, lines 47-68), this means

that the server runs the requested extracting (Col. 6, lines 12-32). Therefore, Gore

discloses a display method, comprising allowing a user to designate a portion of an image

stored by a server; extracting, by the server, only the designated portion; and transmitting

the designated portion to a client for display thereon (Col. 7, line 56-Col. 8, line 29; Col.

6, lines 12-32, Col. 6, lines 47-68).

8.   With regard to Claim 15, Gore describes that rplot 360 creates a design file plot

template which contains a "pointer" to reference the actual data of design file 320 stored

in design file database 325 in the file server (Col. 6, lines 47-68). Therefore, the actual

data of design file 320 is stored in the file server. The user selects the Rplot command,

and when the Rplot command has been selected, the size of the plot is obtained according

to the size of the current view port on the workstation display, and the current

magnification value of the view port. The viewport is that portion of normalized device

coordinate space currently displayed on the client workstation. This value can be

anything from the entire contents of the data file down to the maximum allowed

magnification. The output plot represents the visible portion of the data file currently

displayed on the client workstation at the creation time of the design file plot template

(Col. 7, line 56-Col. 8, line 29). Therefore, the Rplot command selected by the user

results in extracting a viewport (designated portion) of a display result to be displayed on

the client display device as display data from the design file (original image data) which

is stored in the file server, since rplot 360 creates a design file plot template which

contains a "pointer" to reference the actual data of design file 320 stored in the file server

(Col. 6, lines 47-68). Therefore, Gore teaches that the user is designating a plot (or

image) stored by the file server 230, and a viewport (e.g., designated portion) is extracted

from the file server 230, and the viewport is transmitted to the client workstation 210.

Gore describes that the user runs a program, called a client program on a client

workstation, and the server converts the request and arguments into a locally useful form,

runs the requested service, packages the results, and sends them back to the client (Col. 6,

lines 12-32). Therefore, the user makes a request on the client workstation, and the

server runs the requested service. Since the user requests the rplot command, which

performs the extracting and resizing (Col. 7, line 56-Col. 8, line 29; Col. 6, lines 47-68),

this means that the server runs the requested extracting and resizing (Col. 6, lines 12-32).

Therefore, Gore discloses a display method, comprising allowing a user to designate a

portion of an image stored by a server for display by a client; extracting and resizing, by

the server, only the designated portion for display by the client; and transmitting the

designated resized portion to a client for display thereon (Col. 7, line 56-Col. 8, line 29;

Col. 6, lines 12-32, 47-68).

9.   Thus, it reasonably appears that Gore describes or discloses every element of

Claims 14 and 15 and therefore anticipates the claims subject.

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made to
> a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

11.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
obviousness or nonobviousness.

12.   Claims 1, 3, 6, 7, 10, and 11 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Schauser (US006331855B1) in view of Gore (US005128878A).

13.   With regard to Claims 1, 6, and 10, Schauser discloses that the source computer 2

detects changes to the desktop 8 of its own computer, and the source computer 2 forwards

the detected changes to the remote computer 4 (Col. 3, line 57-Col. 4, line 6), this means

an image is displayed on the desktop 8 of the source computer 2 first. Schauser describes

that the computer detects changes by polling a number of subregions of the screen, to

determine if a change has occurred, compares a portion of the currently displayed image

to a corresponding portion of a previously displayed image to determine if changes have

occurred, and if so, the changes are forwarded to the remote computer 4 (Col. 5, lines 6-

24). The computer determines the exact extent of the change, and examines a

predetermined number of pixels surrounding the detected change, for example, 20 pixels

to the left, right, top and bottom of the detected change, and the detected changes are then

communicated to the remote processing system 4 (Col. 6, lines 22-42). Since an entire

image is currently displayed on the desktop 8 of the source computer 2 first (Col. 3, line

57-Col. 4, line 6), and the source computer 2 then detects the changes by comparing a

portion of the currently displayed image to a corresponding portion of a previously

displayed image, and if changes have occurred, the changes are forwarded to the remote

computer (Col. 5, lines 6-24), this means that the changed portion of the image is

extracted from the currently displayed image of the source computer 2 and is forwarded

to the remote computer. Therefore, Schauser discloses a display processing apparatus

which converts generated original server (2, Figure 1A) image data and transmits the

converted data to a client display device (4), comprising a server extraction unit

extracting only a designated portion of a display result to be displayed on the client

display device as a display data from the original image data by determining the

dimensions of the display data to be transmitted; and a transmission unit (6) transmitting

the client display data to the display device (*graphics output is captured as a bitmap on

the server and then transported to the client computer*, Col. 1, lines 43-51; *upon detection

of changes to the desktop 8 of the source processing system 2, the source processing

system 2 forwards the detected changes to the remote processing system 4 via the*

communication of transportation medium 6, Col. 3, line 57-Col. 4, line 6; Col. 5, lines 6-24; Col. 6, lines 22-42).

However, Schauser does not teach determining a display region with vertical-to-horizontal length ratios and corner coordinate rounding calculations for a designated display. However, Gore discloses determining a display region with vertical-to-horizontal length ratios and corner coordinate rounding calculations for a designated display (Col. 7, line 56-Col. 8, line 29; *if these new values are outside a legal range, creating a skewed aspect ratio, the system automatically adjusts the plot size in the x or y direction as appropriate,* Col. 8, lines 57-68).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify the device of Schauser to include determining a display region with vertical-to-horizontal length ratios and corner coordinate rounding calculations for a designated display as suggested by Gore because Gore suggests the advantage of ensuring that the extracted display data can be displayed correctly on the client display device (Col. 8, lines 57-68).

14.   With regard to Claims 3, 7, and 11, Schauser discloses that the display data is visually recognizable data from the original image data (Col. 5, lines 6-24).

15.   Claims 4, 5, 8, 9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schauser (US006331855B1) and Gore (US005128878A) in view of U.S. Patent No. 6,246,421 to Omori.

16.   Regarding claims 4, 8 and 12, Schauser and Gore are relied upon for the teachings

as discussed above relative to Claim 1. Schauser discloses extracting pixel data (Col. 5,

lines 6-24).

However, Schauser and Gore **do not disclose** graphics data namely the digital

image being processed and transmitted to be a three-dimensional graphics. Omori

discloses geometry computing section 4 implementing such processes as coordinate

transformation, clipping and the like for polygon rendering data (col. 3, lines 10-51).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

invention was made to modify the devices of Schauser-Gore to handle Omori's three-

dimensional graphics image data as well **because** it reduces the bandwidth required for

transmitting three-dimensional graphics data to a remote location thus reducing costs.

17.   Regarding claims 5, 9 and 13, Schauser-Gore combination **does not disclose**

division of the original image data into a plurality of areas, and allowing a plurality of

independent process units to process the areas, thereby performing extracting processes in

parallel. Omori **discloses** dividing a two-dimensional image coordinate system into areas

each composed of a plurality of pixels (NxM pixels in total)(col. 2, lines 4-50) and

allocating NxM circuits respectively to the NxM pixels contained in that area, which

results in time required for rendering to be shortened. Therefore, it would have been

obvious to a person of ordinary skill in the art at the time invention was made to modify

the device as taught by Schauser-Gore combination with the feature "plural rendering

circuits for plurality of areas performing extracting processes in parallel" as taught by

Omori **because** it would speed up graphics processing.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joni Hsu whose telephone number is 571-272-7785. The

examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

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more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JH

Ulka Chauhan

Supervisory Patent Examiner